



Pest Cast

The Row Crops IPM Newsletter for the LRGV, a cooperative project of Texas AgriLife Extension Service, the Texas Pest Management Association, and the Cotton & Grain Producers of the lower Rio Grande Valley

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General Situation

Last Saturday we had received a storm that generated up to 120 mph hurricane force winds and hail in various parts of the Valley. There were reports of hail, and wind damage all over but more so in the lower parts of the Valley along the river. Crop damage varied and ranged from minimal in most areas to significant in other areas. We have currently had temperatures in the low 90s with plenty of sunshine since then as crops continue to grow and push through. We are a good week after the recent storm and this following week will be the week to go and look at fields individually to evaluate damage and make decisions.

Cotton

This week in cotton we saw many plants producing some of the very first blooms. Insect pressure was little to none in most fields. We were picking up on the occasional cotton aphids and I noticed in many fields, every stage that we have, a

few winged adult cotton aphids present flying in barely starting to populate this past week. There are

many predators, ladybug adults & larva, scymnus larvae, and syrphid larvae present feeding on aphids as well. Along the river, from Mission to Olmito in cotton we are seeing the occasional adult whitefly popping up. We also saw a couple of adult fleahoppers present in squaring cotton this week but again no populations of concern. I suspect after the next two weeks of higher heat units we will see an increase in pests in cotton but for now it is clean. This year we really do have about every stage present all at the same time in cotton and in other crops as well.



Figure 2: lady bug larva eating cotton aphids



Figure 1: Cotton blooming & with minimal leaf damage due to the recent hailstorm

Evaluating cotton hail damage. While the majority of the Valley's cotton crop received minimal to no hail damage, we still had some early season cotton (2 true leaf cotton) that received some significant hail damage in the Lower parts of the Valley along the river. In squaring cotton along the river, I saw cotton leaves torn up a little by hail but all squares were intact and looked good. In some parts of La feria I

saw cotton in the early growth stages (two true leaves) and it looked pretty beat up, there were skips where that cotton was just pummeled to death, and other plants seemed to make it, but then some plants were cut off below the cotyledon node and will not survive. Cotton in that same area that was just putting on pin head squares (5-6 true leaves) looked rough but should be fine as growing season progresses. According to some helpful literature I read from Mississippi State University Extension, <http://extension.msstate.edu/content/what-should-i-do-about-hail-damaged-cotton-stands>, you want to avoid going to your cotton field right after the storm and evaluate several days after to see what loss is really dead and what has survived. Look at the percentage of cotton plants that have a terminal, what percent do not have a terminal and what percent are cut off below the cotyledon node. Those cut off below the cotyledon node will probably not recover and those with a terminal will recover but will produce many crazy branches. According to another publication with Texas A&M AgriLife Extension, <http://lubbock.tamu.edu/files/2011/10/standloss.pdf>, it is frequently recommended that if 2 or more plants per foot of row survive and if there are not too many long skips, the stand is still good enough for optimum lint production. Under good growing conditions, the plants on either side of a 2-to-3-foot skip can compensate for the missing plants with little or no loss in yield. So, with that said cotton can really come back, it just depends on your current field situation. However, with all this said we will still have crop loss reported in cotton due to hail damage as some fields were just severely hit.

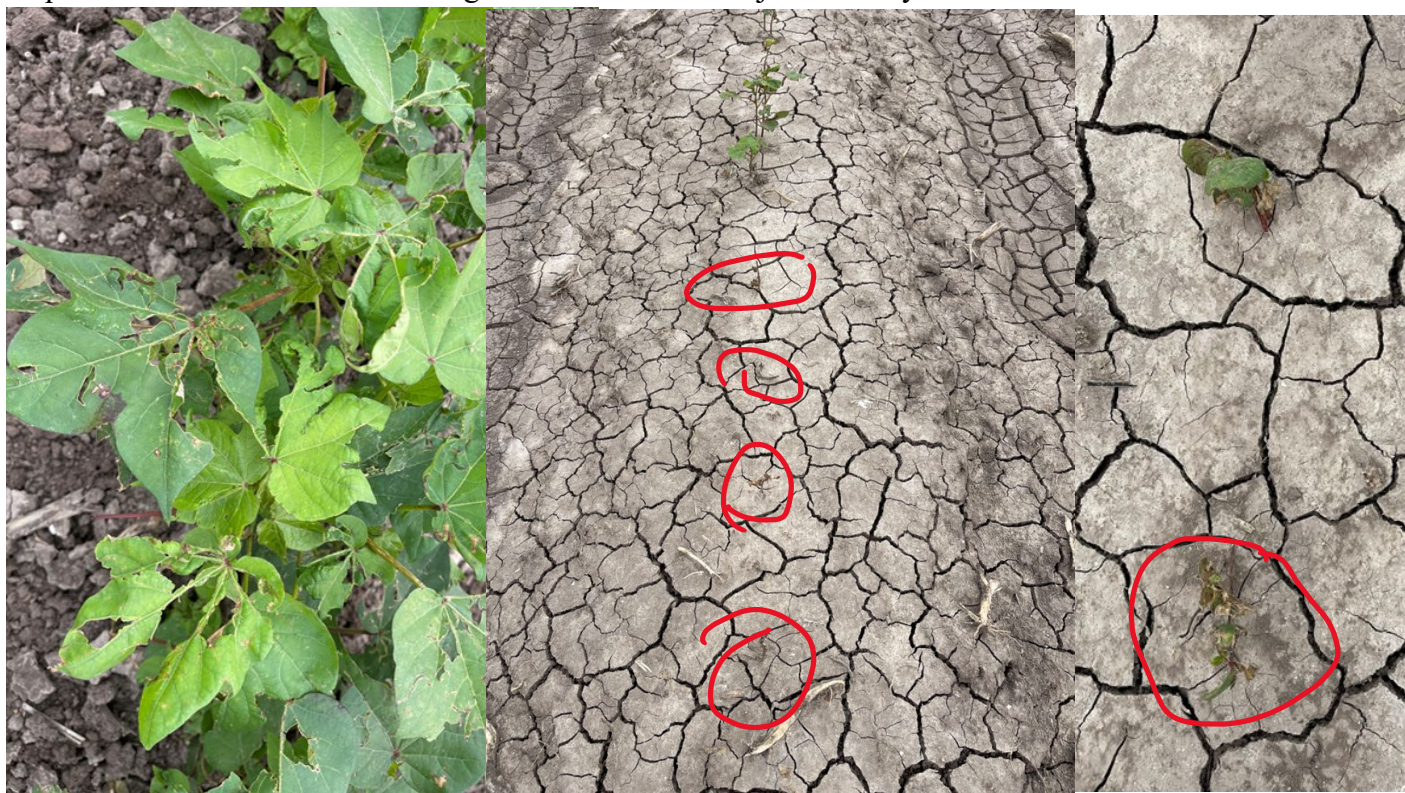


Figure 3: Various hail damage to cotton from minimal leaf damage to complete loss of seedling cotton plant

For further reading information, Cotton Response to Simulated Hail Damage and Stand Loss in Central Texas Joshua McGinty*, Gaylon Morgan, and Dale Mott, click on link below:

<https://www.cotton.org/journal/2019-23/1/upload/JCS23-001.pdf>

Grain Sorghum & Corn

This week in sorghum not really picking up on any insect populations of concern. Still seeing occasional pockets of sugarcane aphids. I only noticed a couple of head worms this week, minimal rice stinkbug activity and no midge thus far in blooming sorghum. We did see lots of soft dough sorghum lodging or laying over along the river as they were hit with 120 mph winds. Even though sorghum was laying over the roots were still in the ground and should be able to mature to hard dough stage just harvest will be difficult and have lots of extra leaf matter (trash). There was some corn lodging in many areas and some corn received severe to minimal hail damage in areas along the river and mid Valley as well. Most hail damage was minimal and only hurt leaf surface and most mature corn heads it seemed that the ears were protected. However there were a few fields that seemed at a complete loss. We are roughly right at one week past these hailstorms and now is the time this following week to evaluate the severity of the hail damage so you can make better decision about putting additional inputs on the fields.

Here is some excellent information evaluating hail damage in corn that my colleague D. TYLER MAYS, EXTENSION AGENT-IPM, HILL AND MCLENNAN COUNTIES put together, read below:

Assessing potential yield loss in corn from hail damage can be confusing, and the ultimate decision to keep or abandon the crop should be based on an assessment from your insurance adjuster. The following is 6 just ways to assess the severity of the hail damage, and provided to give insight if you should contact your adjuster to get an assessment. The first step in assessing hail damage in corn is to identify the crops growth stage. There are two methods to identify corn growth stages. The first and most widely utilized method is the visible leaf collar method that commonly denoted with Vn, where “n” is the number of leaf collars visible (V6= 6 leaf collars visible). The second method is the droopy leaf method which is used by insurance adjusters for assessing potential yield losses from hail. Using the droopy leaf method, once a leaf tip comes out of the whorl and the leaf tip starts to drop toward the soil it is considered a leaf. To convert between the two growth stages, one corn reaches between 12 to 18 inches and the leaf collar stage is roughly 2



Figure 5: Soft dough Sorghum laying over after recent storms.



Figure 4: Corn lodging with wind and hail damage

leaves behind the droopy leaf (V8 corn = ~10 leaf corn). The next step in assessing hail damage impacts on yield is to determine the percentage of the leaf area lost. This can be tricky to assess the earlier you go into a field after the hailstorm, but if you give the crop a few days to try and grow the leaves will start to untangle and a better assessment of leaf area remaining can be made. Based on data published by the National Crop Insurance Service when corn is in the 12-leaf stage (~V10) it takes roughly 55% of the leaf area to be lost to cause a 10% yield loss. The third step in assessing hail damage is to evaluate stalk integrity. In this step we want to look at both the strength of the stalk and the severity of hail damage to the stalk. To test stalk strength, stand next to the plant and grab a hold of the stalk and then extend your arm, if the stalk does not snap back to where it was before extending your arm the strength of the stalk has been compromised and may lodge with late season heavy winds. To determine if the stalk has been damaged internally by hail you need to pull the plant up and determine if the hail stone was big enough or hit the stalk hard enough to bruise through all the leaf sheaths. The best way to assess this is to remove the leaf sheaths from around the stalk and look for wounding on the actual stalk. If wounding is apparent on the stalk, we then need to slice the stalks from the crown of the plant up and assess if there was any internal damage to the pith or vascular tissue, tassel, and ear shoots. If you see a significant percent leaf area lost, poor stalk strength, or excessive damage to the stalk it is recommended to reach out to an insurance adjust for them to come and give them an assessment. Something else we need to watch out for as we move further into the year is hail damage to the lower stalk can provide an easier route of entry for our stalk rot pathogens, and these hail damage fields may need to be harvest sooner to avoid lodging.

Here is some additional links to help:

http://publications.tamu.edu/CORN_SORGHUM/PUB_Assessing%20Damaged%20Corn%20and%20Sorghum.pdf

<https://texashelp.tamu.edu/wp-content/uploads/2016/02/B-6014-Assessing-Hail-Freeze-Damage-to-Field-Corn-and-Sorghum.pdf>

<https://extensionentomology.tamu.edu/files/2019/02/Managing-Insect-and-Mite-Pests-of-Texas-Sorghum-ENTO-085-2018.pdf>

Sesame

Sesame continues to grow and come up across the Valley and seems to have been minimally affected by the recent hail and wind storms in its early vegetative growth stages.



Figure 6: Sesame growing

***** Please save the date, Wednesday May 24, 2023, we will be hosting a Cotton & Grain Scouting School for Pests and Diseases at the Weslaco AgriLife Station, 2 IPM & 1 General TDA CEUs. Please see attached flyer and make plans to attend.**

To register click on this link: <https://bit.ly/3VjMZTm>

All of this is made possible by your generous Pest Cast Sponsors this 2023 year, thank you 2023 Sponsors! Please make plans to attend, this will be good for all growers, scouts, new scouts, consultants and anyone wanting to learn about Cotton & Grain in the LRGV.

Thank You 2023 IPM Pest Cast Sponsors!

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Thank you for your support and I hope you find the information in this Pest Cast provided useful and helpful to your current farming operations.